

WHAT IS CLAIMED IS:

1. A slitting method for manufacturing a battery separator-use resin film object comprising the steps of: providing a slitting device comprising a feeding roll for feeding a film object from a scrolled film object with its rotational velocity being controlled; a slitting blade for slitting said film object so as to have a predetermined width; a sensor for detecting a tension of said film object and a wind-up roll for winding up said film object while controlling the tension of said film object, and slitting said film object by using said slitting device in a manner so as to satisfy the following conditions 1 and 2:

$$\text{(Condition 1)} \quad 5 \times 9.8 \times 10^4 \leq T/L \leq 5 \times 9.8 \times 10^5$$

$$\text{(Condition 2)} \quad 1 \leq R/T \leq 5$$

where L is a thickness (m) of said film object, R is a rotational velocity (m/min) of said feeding roll and T is a tension (N/m) of said film object after having been subjected to the slitting operation.

2. The slitting method of a battery separator-use resin film object according to claim 1, wherein said slitting operation is carried out in a manner so as to satisfy the following condition 3:

$$\text{(Condition 3)} \quad 1 \times 10^8 \geq E/T \geq 4 \times 10^7$$

where E is a modulus of elasticity (N/m²) of said film object and T is a tension (N/m) of said film object after having been subjected to the slitting operation.

3. The slitting method of a battery separator-use resin film object according to claim 1 or 2, wherein: said slitting blade is a razor blade and an angle D (°) made by said razor blade and said film object and a thickness L

(m) of said film object has a relationship that satisfy the following condition

4:

(Condition 4) $5 \times 10^5 \leq L/D \leq 1 \times 10^6$

4. A battery separator-use resin film object obtained by using the
slitting method according to any one of claims 1 to 3.